

# North Dakota Governor's Pipeline Summit

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# More Capital

- Accelerated Infrastructure
  - Experiencing a flood of private equity money moving into the gathering sector.
    - E&P operators are allocating most of the capital to the drill bit and allowing 3<sup>rd</sup> parties to gather commodity.

# Reliable Storage

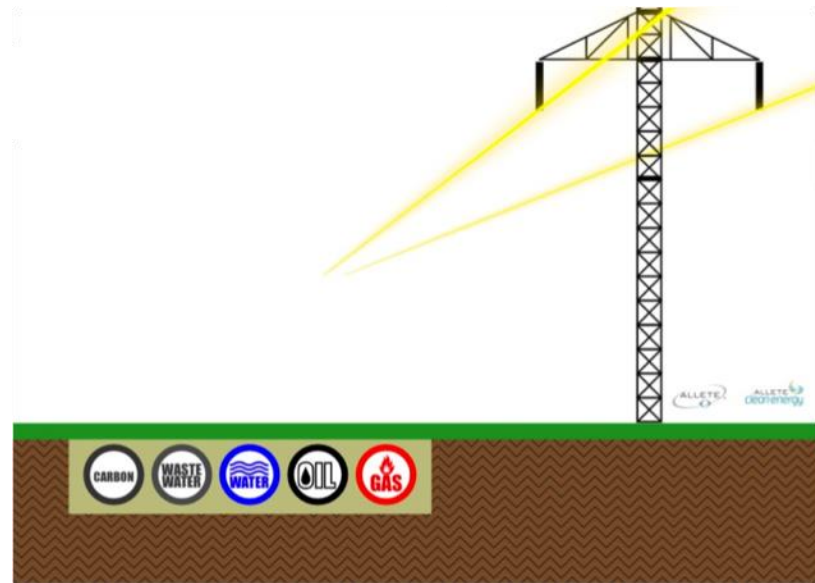
- Concerned about the future ability for railroads to move ever-increasing production out of the state.
- When railroad delays occur, we experience the ripple effect getting closer and closer to the wellhead.
  - Previously, ample storage was available for short-term setbacks. Now, supply has perhaps overshot available storage options between the wellhead and the railcar.

# Utility Corridors

- Producers are demanding simultaneous gathering services for gas, oil and produced water.
  - Previously, provided by three separate entities.
- New options to provide the service are in process.
  - ALLETE Energy Corridor

# ALLETE Energy Corridor

- ◇ Proposed late 2013 as multi-purpose solution for transport to and from the production area
- ◇ Concept supported by Gov. Dalrymple as a “break-through opportunity”
- ◇ Coordinated right-of-way, land use
- ◇ Minimize environmental impacts
- ◇ Proven, flexible:
  - ◇ Multiple products
  - ◇ Various lengths
- ◇ Path to solutions – flaring, congestion



# Industry and Environment

- Gatherers are willing to spend disproportionate amounts of capital to move produced water.
- More expensive materials and construction practices are used to ensure water system integrity.
- Could indicate that the industry is responding to environmental challenges of cleaning up large produced water spills.

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# Field Innovation

- New polymer research led to new types of pipe material.
  - KLJ working with party to install and test pipe made of Nylon 66.
  - Field constructed using conventional fusion methods (similar to HDPE).
    - Operated at double or sometimes triple the pressure allowed by HDPE.



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